

## Clean Michigan Initiative Nonpoint Source Grant 2002-0036



## Kalamazoo County Road Commission

Telephone: (269) 381-3171

Fax: (269) 381-1760

Email: JByrnes@KCRC-ROADS.com

# Kalamazoo County Road Crossing at DE Avenue

04/04 thru 12/05

A paved roadway with steep grades, a 65-year-old bridge, and several adjacent residential driveways west of the DE Avenue/Spring Brook crossing were contributing excessive amounts of sediment and nutrients to Spring Brook. A small tributary of the Kalamazoo River, Spring Brook encompasses approximately 14 square miles within Richland and Cooper Townships. It is a comparatively high gradient water course due to the rolling nature of its watershed. Land use in the watershed is largely characterized by light to medium density residential estates, open space/wooded, and agricultural properties. It's been designated by the MDNR as one of Southern Michigan's highest quality wild trout streams. The goal of this project was to stabilize the road-stream crossing to reduce sediment entering Spring Brook.

CMIV

Grant Amount: \$ 123,400 Match Funds: \$ 102,700

Total Amount: \$ 226,200

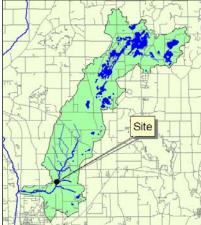
## Best Management Practices:

- · 14 Check Dams
- 4 Grass Waterways
- 5 Grade Stabilization Structures
- 810 linear feet Storm Water Conveyance Channel
- 2 Oil/Grit Separators

## **Annual Load Reductions:**

- Sediment 3.1 tons
- Phosphorous 1 pound
- Nitrogen 3 pounds







Steep road slope and open ditch line led to high sediment loading of brook.

#### Partners involved:

- · Cooper Township
- · Richland Township
- · Kalamazoo Chapter Trout Unlimited
- Michigan Department of Natural Resources

Storm water diverted through BMP system reduces sediment.

